IMMS™ Owners Manual

Communications Troubleshooting Guide

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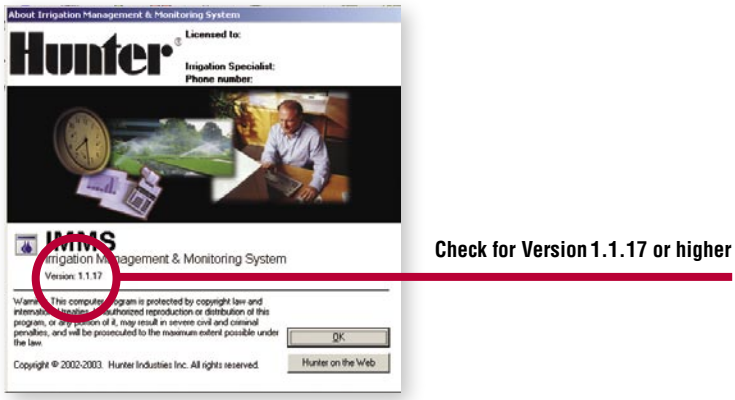
Note: *You MUST have IMMS software Version 1.1.17 or higher to run this procedure.*

Check IMMS Program Revision

This procedure relies on features in IMMS Software Version 1.1.17 and higher. The Version number is displayed on startup or is accessible by clicking Help on the IMMS menu bar, then "About IMMS". If you do not have Version 1.1.17 or higher, contact your local distributor or Hunter Technical Services for an update. Version 1.3.0 and higher can be updated via e-mail… earlier versions will require a new CD-ROM.



Check IMMS-CCC Power Indicator

On the front of the IMMS-CCC verify that the Green Power light is on. If the light is on, continue with IMMS-CCC Communications Section; otherwise, perform the following steps:

Figure 1: CCC Power Light

Check CCC Power Cable

On the rear of the CCC, check that the 24VAC power cable (round connector) is fully plugged. If not, unplug cable, check pins are not bent. Reconnect cable and check front panel light again. If the IMMS-CCC green power light is now on, IMMS may be functional. If the light is still off, continue with "Check Adapter's AC Power" section.

Figure 2: CCC AC Power Cable

Check Adapter's AC Power

Follow the 24VAC cable to the adapter. Unplug adapter from the outlet. Plug in a light and verify the light comes on (outlet has power). Unplug light then plug in adapter. If the IMMS-CCC green power light is now on, IMMS may be functional. If the CCC light is still off the adapter and or CCC may be defective.

Check IMMS-CCC Communications

This section consists of determining which COM port that the IMMS-CCC is connected to, then verifying that the correct port is selected in the IMMS program.

Determine IMMS-CCC COM Port

On the rear of the IMMS-CCC, locate the serial cable (TO PC) (center connector). Follow the serial cable back to the PC. Refer to your computer's user manual to determine which COM port the IMMS-CCC cable is connected to.

Check IMMS-CCC Port Setting

Start the IMMS program.

Navigate to the Site Hardware page.

Verify that the CCC port selected is the same one as the one determined in "Determine IMMS-CCC COM Port" section.

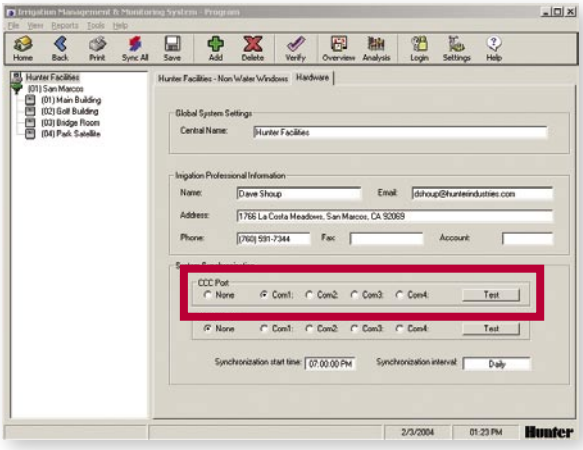


Figure 3: Site Hardware Screen

First IMMS-CCC/SI Test

Press the CCC Test Button

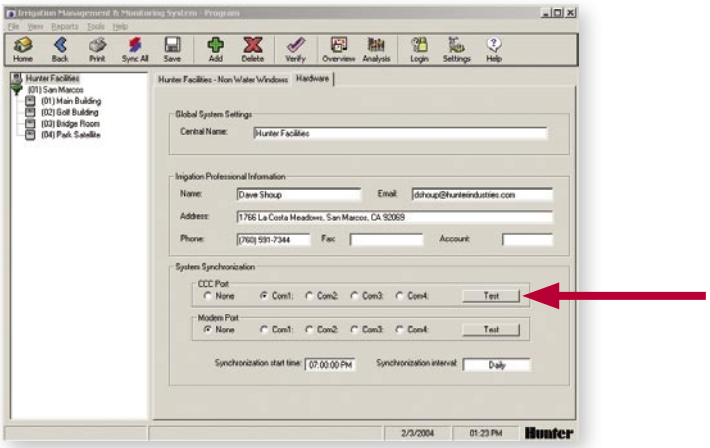


Figure 4: CCC Test Button

COM in Use

If after pressing the CCC Test button you receive the “COM in use” dialog box, there is one of two likely problems:

- The wrong COM port is selected. Try selecting a different Com Port, then continue with step titled “First IMMS-CCC/SI Test”.
- Some other software application is using the same COM port. Consult with your computer retailer / manufacturer for further information. One program which frequently causes a conflict is the "Palm Hot Sync Manager". Consider closing the Hot Sync manager, or assigning it to another port.

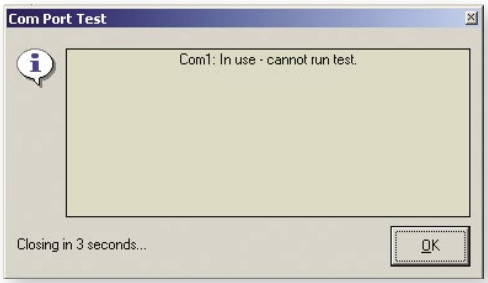


Figure 5: COM in use

CCC/SI Communications Failure #1

If after pressing the CCC Test button you receive the “CCC/SI Communications Failure” dialog box, there are two likely problems:

- The wrong COM port is selected. Try selecting a different Com Port, then continue with step titled “First IMMS-CCC/SI Test.” If selecting a different serial port does not work continue with step titled "CCC/SI Communication Failure #1."
- There is a hardware problem with the Serial Cable, the IMMS-CCC, the GCBL cable from IMMS-CCC to the IMMS-SI or the IMMS-SI itself. Continue with "CCC/SI Communication Failure #1" section.

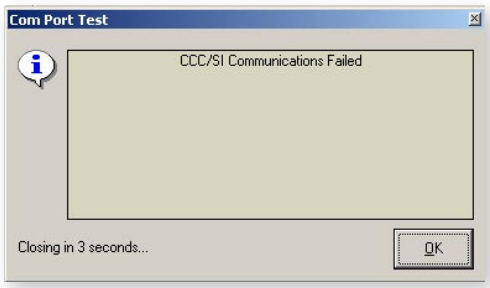


Figure 6: CCC Communications Failed

Install Loop Back Wiring on IMMS-CCC

This test verifies the correct operation of the IMMS-CCC.

Disconnect GCBL wiring from rear or IMMS-CCC (Red, Black, Blue, Yellow and shield).

With a short piece of wire, connect Black (SI 2) and Blue (SI 3) terminals together.

With a short piece of wire, connect Red (SI 1) and Orange (SI 4) Terminals together.

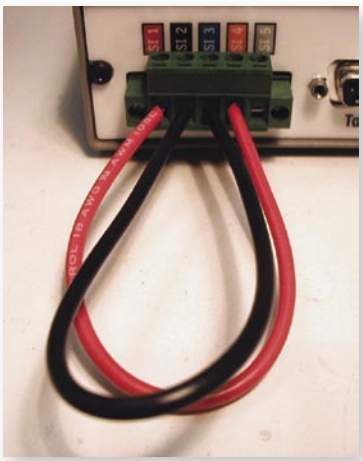


Figure 7: CCC Loop Back Wiring

Press the CCC Test Button (refer to Figure 4).

If you see the “CCC Loop Back Test Passed” dialog box, the communication between the PC and the CCC is acceptable. If you see “CCC/SI Communications Failure” dialog box any of the following could be the problem:

- The wrong COM port is selected. Try selecting a different Com Port, then continue with step titled "First IMMS-CCC/SI test. If selecting a different serial port does not work, continue with section titled “CCC/SI Communication Failure #1.”
- There is a problem with the Serial Cable to the IMMS-CCC, or the Serial Port itself.

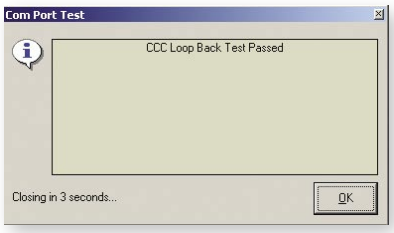


Figure 8: CCC Loop back Test Passed

Reconnect the GCBL cable to the IMMS-CCC (see Figure 9). Ensure the wire colors match the label above the “To Site Interface” connector. Failure to connect the wires in the proper sequence WILL cause an IMMS communications failure.

IMMS-CCC GCBL to IMMS-SI Field Wiring test

This troubleshoots communications problems from the IMMS-CCC to the IMMS-SI.

Check IMMS-CCC GCBL Cable Connections.

On the rear of the IMMS-CCC verify that the GCBL cable is connected as shown in Figure 9. From left to right the wire colors are Red, Black, Blue, Orange and the (silver) ground (or “drain”) wire. The drain wire should also be connected to an approved earth ground (not shown).

Figure 9: CCC GCBL wiring

Check IMMS-SI Power Indicator and Plug

On the IMMS-SI, verify that the Green Power indicator is on (see Figure 10). If the indicator is not on:

- Verify that the Power Connector is plugged in and fully seated (see Figure 11).
- Verify that the top two wires are yellow and that the bottom wire is green
- Verify that the yellow wires are not loose.

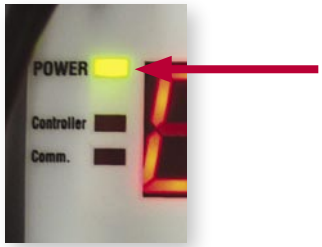


Figure 10: IMMS-SI Power Indicator

If this does not fix the problem continue with step titled “Check IMMS-SI Power Supply.” If the power indicator is on, skip to "Check IMMS-SI Power-up".

Check IMMS-SI Power Supply

Using an AC voltmeter, check for 24VAC on the top two pins of the IMMS-SI power connector.

If there is 24VAC the on the screw terminals, the SI may be defective.

If there is no 24VAC on the screw terminals, check the AC wiring and the AC power source.

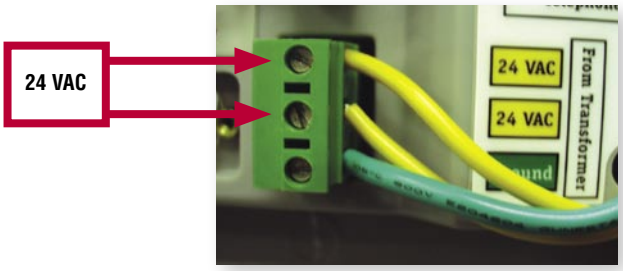


Figure 11: IMMS-SI 3 Pin Power Connector

Check IMMS-SI Power-up

On the IMMS-SI, verify that the display is EITHER ‘0 1’ or ‘- -‘. If the display is incorrect, unplug the SI Power Connector, wait 10 seconds and plug connector back in.

Figure 12: SI Power Up Display

If within 20 seconds the display is not ‘0 1’ or ‘- -‘, the IMMS-SI is probably defective. If the display is correct, continue with step titled “Check GCBL Cabling.”

Check GCBL Cabling.

This section verifies that the GCBL cable from the IMMS-CCC to the IMMS-SI is working.

At the IMMS-SI, disconnect the GCBL cable from the communication connector (see Figure 13).

Using a wire nut, connect the Red and Orange wires together.

Using a second wire nut, connect the Black and Blue wires together.

At the IMMS PC, press the Test Button in the software as described in step titled “Check IMMS-CCC Communications.”

If the PC displays “CCC/SI Communications Failure” dialog box (see Figure 6) the GCBL cable is defective. Repair cable and retest IMMS system.

If the PC displays the “CCC Loop Back Test Passed” dialog box (see Figure 8), reconnect GCBL cable (see Figure 13) and continue with step titled “Check IMMS-SI Communication.”

Check IMMS-SI Communication

On the IMMS-SI check the GCBL cable from the IMMS-CCC:

- Verify that it is connected to the top 4 pins of the communications connector (see Figure 13)
- The wire colors from top down are Red, Black, Blue and Orange (see Figure 13)
- Verify that the wires are not loose

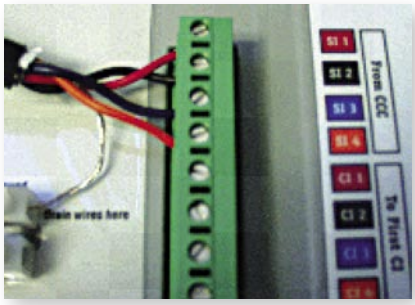


Figure 13: IMMS-SI Communications Connector

At the IMMS PC, press the Test Button in the software as described in step titled “Check IMMS-CCC Communications.”

If the PC displays “CCC/SI Communications Failure” dialog box (see Figure 6) the IMMS-SI may be defective.

If the PC displays the “CCC/SI Communications Passed” (see Figure 14), the IMMS communications is functioning between the PC and the IMMS-SI.

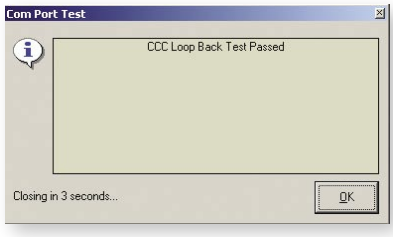


Figure 14:CCC/SI Communications Passed